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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,625	10/14/2003	Gary Jon Boudrieau	004811202001	2624

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EXAMINER

SWARTHOUT, BRENT

ART UNIT PAPER NUMBER

2612

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/605,625

Applicant(s)

BOUDRIEU, GARY JON

Examiner

Brent A. Swarthout

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 20 and 21 is/are allowed.
6) ☒ Claim(s) 1-19 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1-16 state that commands are transmitted to prevent aircraft from crashing into "any" object on the ground and in the air. However, applicant's specification is insufficient to disclose details for prevention of contact with any object. For example, no anti-missile collision avoidance is disclosed, no avoidance of stealth aircraft is disclosed, no avoidance of collision with intended docking areas is disclosed, etc. Applicant's system is limited to non-crashing into objects only as set forth in the specification, and not "any object".

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3,5,6,10-15,17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Craig in view of Mardirossian.

Craig discloses a system for protecting aircraft operation comprising autopilot control 202 (col. 11, line 7), pilot operated controls (col. 4, lines 23-34), anti-crash system and auto controlling piloting system 1150 for automatically and without human intervention overriding vehicle control input devices and autopilot 202 (col. 3, line 59); col.4, lines 14-19; col.11, lines 6-21) with inherent command signals after sensing a

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dangerous situation on board the aircraft (col. 8, lines 20-28), control at all times in the air and on the ground (col. 2, lines 9-12) and for flying the aircraft to a safe destination (col. 11, line 9), except for specifically stating that the system prevents the aircraft from crashing into objects. It should be noted that a system designer would have avoided flying the aircraft into known objects when providing a safe destination flying program.

Furthermore, Mardirossian teaches desirability of automatically controlling an aircraft to avoid crashing into objects on the ground (abstract).

It would have been obvious to control an aircraft as taught by Craig to avoid controlled flight into objects as suggested by Mardirossian, in order that safe flight could have been realized even if a pilot became incapacitated..

Regarding claim 2, Craig teaches communicating with ground personnel (col. 11, line 19).

Regarding claim 3, Craig teaches using a course set by authorities in advance (col. 11, line 8).

Regarding claim 5, Craig teaches allowing ground to change course of aircraft during emergencies (col. 11, line 18).

Regarding claim 6, Mardirossian teaches desirability of letting ground monitor flight information (Fig. 1, box 7).

Regarding claim 15, Craig receives communications from other aircraft and ground (col. 11, line 19).

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Craig in view of Mardirossian and Murray et al.

Mardirossian teaches desirability of transmitting video data from an aircraft to ground (col. 3, line 37), except for use of audio feed.

Murray teaches desirability of providing audio cockpit data to a remote station in order to monitor cockpit conditions during an emergency (col. 14, lines 13-23).

It would have been obvious to one of ordinary skill in the art to include audio data for transmission to a central station as suggested by Murray in conjunction with a system as disclosed by Craig, and Mardirossian, in order to more accurately determine cockpit conditions so as to be able to best control an aircraft for specific conditions.

4. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Craig in view of Mardirossian and Nelson.

Nelson discloses desirability in an anti-hijacking system for aircraft of notifying government officials of the hazardous situation (col. 5, lines 34-35).

It would have been obvious to notify government officials as suggested by Nelson in a system as disclosed by Craig and Mardirossian in order to allow appropriate response teams to be summoned as necessary.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Craig in view of Mardirossian and Manion.

Manion discloses desirability of having a ground based object transmit signals indicative of distance and height to the anti-crash system (col. 4, line 65- col. 5, line 19).

It would have been obvious to provide obstacle transmitting units as suggested by Manion in conjunction with an obstacle avoidance system as disclosed by Craig and

Mardirossian, in order to make it easier to identify ground object location so as to better avoid such location.

6. Claims 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 20-21 are allowed.


8. Regarding applicant's remarks filed with the response on 5-25-06, on page 8 it is stated that Craig cannot prevent a seated flight crew from intentionally crashing an aircraft and that Craig requires human intervention. The claims have no limitation regarding a crewmember intentionally crashing the aircraft, so there is no requirement for Craig to teach such a limitation. Also, claims require transmission of commands without human intervention which is exactly what is taught by Craig, since once person sensor automatically detects a change in occupancy state, Craig causes inherent signals to be transmitted to initiate control isolator 1170 to lock out all vehicle control inputs (col. 3, lines 58-61).

On page 9 it is stated that Craig does not disable autopilot and taxi controls. However, Craig does teach disabling autopilot and taxi controls (col. 3, lines 58-61; and col. 4, lines 25-27).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent A Swarthout whose telephone number is 571-272-2979. The examiner can normally be reached on M-F from 6:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Horabik, can be reached on 571-272-3068. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Brent A Swarthout
Art Unit 2636

**BRENT A. SWARTHOUT
PRIMARY EXAMINER**